An Evidence-Based Approach to Determining Route of Delivery for Twin Gestations

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Approximately 50% of twin pregnancies deliver preterm, and major complications associated with prematurity include respiratory distress syndrome, necrotizing enterocolitis, intraventricular hemorrhage, and sepsis. These complications drive the perinatal mortality rate of twins to seven times that of singletons. Although delivery may take place due to iatrogenic or spontaneous etiologies—no matter what the indication—optimizing the route of delivery for twins is an important component of care that must be thoughtfully considered.
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Twin pregnancy has risen 70% since 1980.[1] Twins now account for 3% of all births, largely due to the increased use of assisted reproductive technologies (ART).[1] Approximately 50% of twin pregnancies deliver preterm, and major complications associated with prematurity include respiratory distress syndrome, necrotizing enterocolitis, intraventricular hemorrhage, and sepsis. These complications drive the perinatal mortality rate of twins to seven times that of singletons.[1] Although delivery may take place due to iatrogenic or spontaneous etiologies—no matter what the indication—optimizing the route of delivery for twins is an important component of care that must be thoughtfully considered (Figure 1).

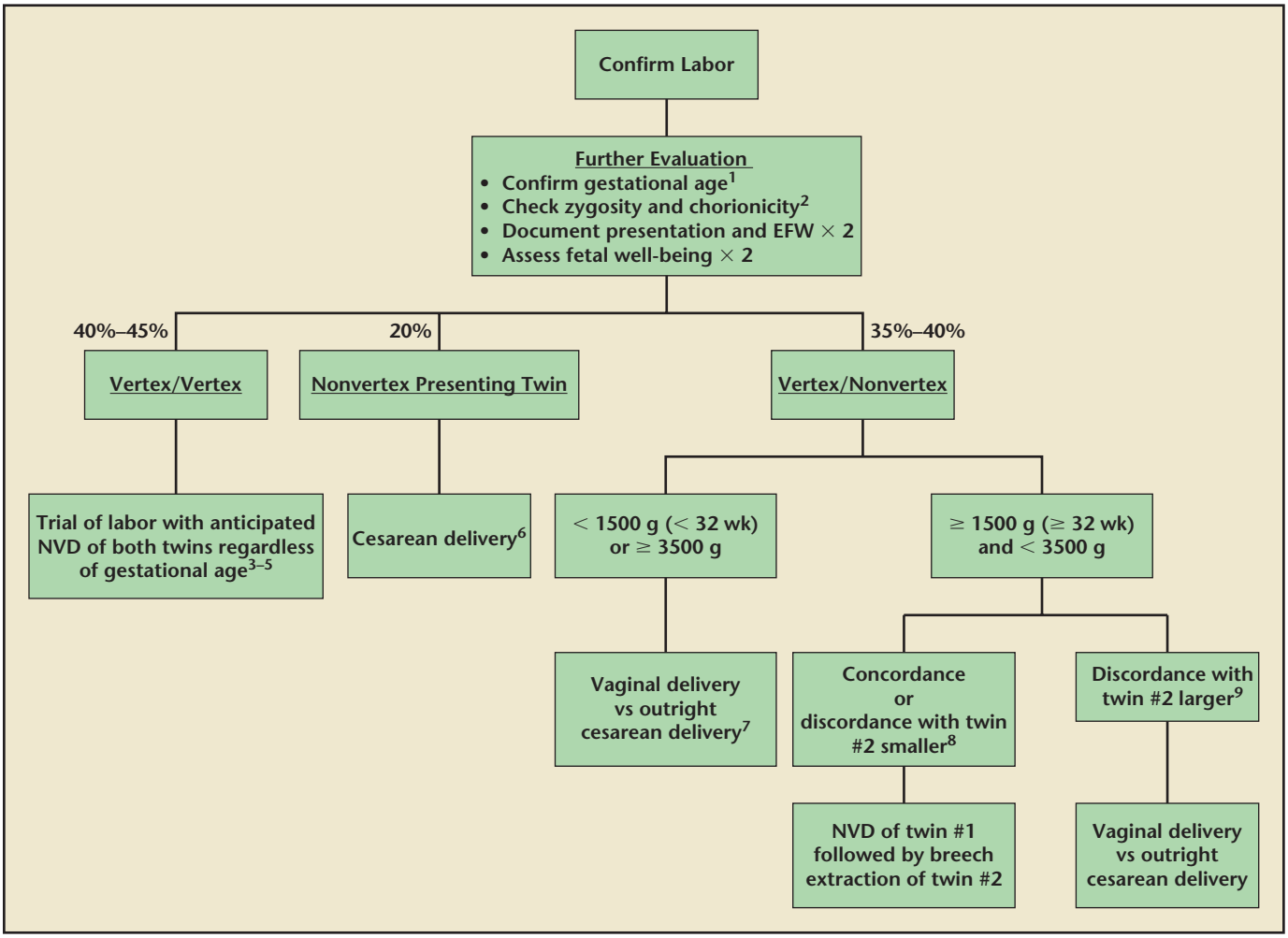

Figure 1. [1]*There is considerable controversy about the intrapartum management of twin pregnancies, which is due primarily to an absence of well-designed clinical trials and to conflicting recommendations in the literature.* [2]*Many authorities recommend that monoamniotic twin pregnancies be delivered by elective cesarean as early as 32 to 34 weeks of gestation due to the risk fetal demise secondary to cord entanglement.* [3]*Continuous electronic fetal monitoring of both fetuses is required throughout labor and delivery. Intravenous access should be attained and blood readily available, if needed. Anesthesiology should be notified and regional anesthesia recommended. Cesarean delivery may be indicated for the usual obstetric indications (such as nonreassuring fetal testing, placenta previa, or elective repeat cesarean after prior cesarean delivery). It is generally recommended that a neonatologist be present at delivery, because a second twin is more likely to require resuscitation. If a vaginal delivery is to be attempted, ultrasound equipment should be available throughout labor and delivery to document the fetal heart rate of the second twin, if necessary, and to confirm presentation (note that presentation of the second twin may change in up to 20% of cases after delivery of twin 1). With the possible exception of concordant, vertex/vertex, diamniotic twin pregnancies in labor at term, all twin pregnancies should be delivered in the operating room with the availability of urgent cesarean delivery.* [4]*Internal podalic version and breech extraction of twin 2 is an acceptable option. An obstetrician skilled in operative vaginal delivery and vaginal breech delivery is a prerequisite for any such a delivery.* [5]*In the setting of reassuring intrapartum fetal heart rate monitoring, there is no urgency to deliver a cephalically presenting second twin, because delivery interval per se does* not *appear to effect perinatal outcome. However, a delivery interval of >15 min is associated with an increased risk of cesarean delivery. For this reason, active rather than expectant management of the second twin (artificial rupture of membranes, oxytocin augmentation, and/or breech extraction) is generally recommended.* [6]*There is no place for external cephalic version of twin 1.* [7]*Several studies have suggested that vaginal breech delivery of fetuses <1500 g is safe, whereas others suggest a poorer neonatal outcome for second twins delivered vaginally when in a nonvertex presentation. Provided an obstetrician skilled in breech extraction is present, preterm status with weight <1500 g for second twin does not contravene a trial of labor.* [8]*Discordance is often defined as ≥25% difference between twins (= EFW of larger fetus – smaller fetus/EFW of larger fetus × 100, expressed as a percentage).* [9]*Twin discordance does not represent an absolute contraindication to a vaginal trial of labor, though weak evidence may support consideration of an outright cesarean in cases with extreme discordance in order to avoid a combined delivery, particularly when the nonpresenting twin is ≥40% larger than the second twin. EFW, estimated fetal weight; NVD, natural vaginal delivery.*

Method of Delivery: Planned Cesarean Versus Planned Vaginal Delivery

Which route of delivery is preferred? If the presenting twin is cephalic, the option of vaginal delivery must be contemplated. When choosing the vaginal route, one must be prepared for the second twin to change position after delivery of the first. The second twin experiences positional change in approximately 20% of twin planned vaginal deliveries.[2] If the second twin presents cephalic, one may allow the fetal head to descend into the pelvis. However, should the second twin's presentation be breech or oblique—or should the obstetrician

opt to deliver the fetus in a noncephalic presentation in an attempt to expedite the remainder of the second stage—two additional options exist for vaginal delivery: external cephalic version (ECV) followed by vaginal delivery or internal podalic version followed by breech extraction. In this article, internal podalic version followed by breech extraction is not differentiated from total breech extraction; we are not aware of any data from the modern era suggesting a disparity in outcomes between second twins undergoing internal podalic version and extraction and those delivered by total breech extraction. If neither ECV followed by vaginal delivery nor internal podalic version followed by breech extraction is successful, then a cesarean delivery should be performed. When the first twin is delivered vaginally and the second by cesarean, it is called a *combined delivery*.

External Cephalic Version Versus Internal Podalic Version?

In 1989, Stephen Gocke and colleagues retrospectively evaluated 136 sets of vertex-nonvertex twin deliveries.[3] The primary delivery attempt was breech extraction, external cephalic version, or cesarean due to physician preference. For the first two groups, when the primary attempt failed, the opposite maneuver was attempted before resorting to cesarean delivery. When internal podalic version and breech extraction was performed as the first attempt, successful vaginal delivery occurred in 96% of patients. When ECV was performed as the primary delivery attempt, successful vaginal delivery occurred in only 46% of patients. Combined delivery occurred for 39% of the patients who underwent ECV first in contrast to a 4% combined delivery rate for those twins in which breech extraction was initially attempted. Furthermore, even those patients in whom ECV was successful experienced high rates of emergent cesarean and complications not seen in the other two groups, such as fetal distress, cord prolapse, and compound presentation.

Implications of Combined Delivery

When comparing combined delivery with vaginal delivery, one study found mothers with twins undergoing combined delivery had increased rates of puerperal infection.[4] No statistically significant difference was found in blood transfusion rates or length of hospital stay. In 2008, the Maternal Fetal Medicine Unit (MFMU) compared twins delivered by combined delivery with twins delivered by cesarean.[5] The review noted that, although endometritis was more common in the combined delivery group, the finding was not statistically significant (odds ratio [OR], 1.6, 95% confidence interval [CI], 1.0-2.7). The article also evaluated neonatal outcomes and found no difference with respect to umbilical artery cord gas pH, Apgar scores, seizures, intraventricular hemorrhage, hypoxic ischemic encephalopathy, or neonatal death. Thus, the primary adverse outcome of a combined delivery in comparison with vaginal delivery may be limited to an increased risk of puerperal infection. Additional adverse outcomes related to combined delivery include the increased postoperative recuperation time and the impact on future pregnancies resulting from cesarean delivery.

Guidelines

The American Congress of Obstetricians and Gynecologists (ACOG) suggests that individual obstetricians recommend the best route for their patients: "The route of delivery for twins should be determined by the position of the fetuses, the ease of fetal heart rate monitoring and the maternal and fetal status."[6] The Canadian Guidelines in the Consensus Statement 20 read: "Delivery of cephalic twin A/non-cephalic Twin B: Estimated weight 1500 to 4000 g. Vaginal delivery is indicated as long as the obstetrician is comfortable with and skilled in vaginal breech delivery."[7] Consensus Statement 21 in the same document addresses preterm twins: "Delivery of cephalic Twin A/non-cephalic Twin B: Estimated weight 500-1500 g. In this weight range, the group acknowledged that there is no consistent evidence to support either Cesarean section or the vaginal route for delivery."[7] Similarly, the Cochrane Database reviewed the one randomized trial on mode of delivery for twins and concluded that cesarean delivery should not be universally adopted as the route of delivery for twins.[8] Therefore, the question persists: is there a preferred delivery method for twins?

Term and Late-Preterm Twins

Perinatal outcome is perhaps the most important concern when choosing the preferred route of delivery for twin gestations. Proponents of planned cesarean delivery of late preterm and term twins often cite the same four studies.[9-12] One study performed in Scotland examined 4707 twin pregnancies.[9] The study goal was to determine if second twins are at an increased risk of perinatal death due to labor and delivery complications. In this study, 454 women at term underwent planned cesarean delivery. No perinatal deaths were observed among the group undergoing cesarean delivery. A separate group of 2436 women at term delivered by another method. Of those delivered by another method, nine perinatal deaths occurred, all of which were in the second twin. Results showed a statistical difference between the first and second twin, although the mode of delivery for those deaths was not limited to vaginal/vaginal deliveries. Absolute numbers suggested that planned cesarean delivery may be beneficial, but

the study was not adequately powered to show this benefit. A study from Nova Scotia[10] that examined perinatal outcomes in twins at 34 weeks of gestation or longer between vaginal delivery of both twins versus cesarean delivery with no labor found a relative risk of 2.57 (1.16-5.72) for a composite adverse outcome with vaginal delivery. This study was flawed in that it compared the second twin to the first—and all second-born twins irrespective of route of delivery did worse—rather than primarily comparing the second twins with respect to method of delivery.[10]

Yang and colleagues also examined birth outcomes with respect to route of delivery.[11] When birthweight exceeded 2500 g for vertex-vertex twins, vaginal delivery of the second twin was associated with an increased risk of noncongenital anomaly–related deaths compared with cesarean for both twins (adjusted OR, 2.69 [1.20-8.39]) and ventilation use (adjusted OR, 1.24 [1.11-1.40]). For vertex-nonvertex twins[12] with birthweights between 1500 g and 4000 g, cesarean delivery was protective only for newborn infant injury (adjusted OR, 50.88 [11.2-899.2]), Apgar score <7 at 5 minutes (adjusted OR, 2.69 [2.07-3.54]), and ventilator use (1.42 [1.25-1.62]). No differences were noted in seizures, neonatal deaths, noncongenital anomaly–related deaths, or asphyxia-related deaths.[12]

Rabinovici and coworkers performed the only randomized, controlled trial addressing the question of perinatal outcome for twins based on route of delivery.[13] The study included a total of 60 pregnancies at a gestational age of 35 weeks or longer. All women carried vertex-nonvertex twins. Thirty-three women were randomized to planned vaginal delivery, whereas 27 were randomized to cesarean delivery. The study found no statistically significant difference in any neonatal outcome including Apgar scores, birth trauma, neonatal death, or combined delivery. Maternal febrile morbidity was significantly higher in the cesarean delivery group (40% vs 11%).

Hogle and colleagues performed a meta-analysis[14] of four trials: the Rabinovici trial and three retrospective, cohort studies.[15-17] The study goal was to determine if planned cesarean delivery was preferable to planned vaginal delivery and incorporated pooled ORs including perinatal, neonatal, and maternal outcomes. All twin pairs were either >32 weeks of gestation, larger than 1500 g, or older than 35 weeks of gestation. Twin positions were either vertex-unknown, vertex-nonvertex, or twin A breech. Although all analyses dealing with vertex-presenting first twins favored vaginal delivery, the ORs all crossed 1. No statistically significant findings were uncovered.[14]

The incidence of combined delivery for term and late preterm twins has been examined in more than one study. Analysis from the multiple matched birth file nationwide data set revealed that the incidence of combined delivery is 4.2% and 22.6% in vertex-vertex and vertex-nonvertex twins, respectively.[18] Recent studies performed at single institutions reported even lower rates of combined cesarean delivery.[19,20] At The Mount Sinai Hospital in New York, 287 mothers carrying twin gestations with breech second twins heavier than 1500 g were allowed to choose their route of delivery. Deliveries were performed by one of six attending obstetricians, and active management of the second stage was used. Results showed that 54.7% of patients chose cesarean delivery and 45.3% of patients chose vaginal delivery. No patients required a combined delivery.[20]

In The Mount Sinai Hospital population under review,[20] Apgar scores of the first twin showed no statistical difference between the two groups. No differences in 5-minute Apgar scores or cord pH were detected for second twins between planned vaginal delivery and planned cesarean delivery groups. One birth injury occurred during a breech extraction, a fractured humerus that occurred during reduction of a nuchal arm. At 18 months, the child had no permanent injury.

Zhang and colleagues were another group to examine twin mode of delivery with respect to birthweight.[21] This study included both vertex-nonvertex and vertex-vertex twins. When birthweight exceeded 2000 g, cesarean delivery was not protective with regard to neonatal or infant mortality. Another retrospective study by Peaceman and colleagues examined twin deliveries at more than 30 weeks of gestation.[18] When examining vertex-vertex twins and vertex-nonvertex twins, the researchers found that cesarean delivery was not protective for infant death. Vertex-vertex twins in this study had no increased risk of composite morbidity or mortality. When compared with twins delivered by cesarean, the vaginally delivered vertex-nonvertex twins had small increases (<1% increase in each category) in the incidence of birth injury, requirement of ventilation more frequently within the first 30 minutes of life, and likelihood of having an Apgar ≤ 3 at 5 minutes, yet had no increased incidence of mortality or seizures. In most providers' opinions, increases as meager as these would not be deemed clinically relevant.

There is an abundance of additional observational data with several hundreds of subjects that unanimously supports the safety of vaginal delivery of the nonvertex second twin by demonstrating improved or equal neonatal outcomes compared with cesarean delivery.[22-26] To delve into the specifics of each study is beyond the scope of this review, but the preponderance of available evidence seems to be clear on this matter.

One analysis comparing route of delivery for twin gestations greater than

35 weeks also included cost in the outcomes. At the Medical University of South Carolina, 84 vertex-nonvertex pregnancies greater than 35 weeks of gestation were analyzed with respect to method of delivery and cost.[26] Three groups were evaluated: Group A, consisting of spontaneous vaginal delivery of the first twin and breech extraction of the second twin; Group B, consisting of spontaneous vaginal delivery of the first twin and external cephalic version of the second twin; and Group C, in which both twins underwent cesarean delivery. Maternal hospital charges were $5890, $8638, and $7814 for each group, respectively. All patients in Group A delivered vaginally. Eleven of 19 patients in Group B delivered by combined delivery. When examining neonatal outcomes, researchers found that neonates in Group A had significantly fewer pulmonary complications than infants in Groups B or C.[26]

For the delivery of term and late preterm twins, in situations where the presenting twin is vertex and the second twin is either vertex or nonvertex, there is a substantial body of evidence supporting planned vaginal delivery. It is important to note that almost every study lacked randomization. Nevertheless, when physicians with training in breech extractions are combined with an appropriate and willing patient, in most instances, a vaginal delivery can be performed successfully and safely for both mothers and infants.

Preterm Twins Under 1500 g

Delivery of preterm twins, particularly with individual birthweights under 1500 g and when the second twin is nonvertex, remains controversial. In 1996, Zhang and colleagues questioned whether these neonates benefited from cesarean delivery, and more specifically, at what gestational age or birthweight benefit may be conferred.[21] The study examined 4428 twin pregnancies with birthweights heavier than 500 g where fetal position was either vertex-vertex or vertex-nonvertex. The study compared infant outcomes of pregnancies with both twins delivered by cesarean and those with both twins delivered vaginally. The data were then stratified by birthweight. The authors found that cesarean delivery resulted in less mortality when birthweight was 500 to 749 g. Infant death decreased (OR, 0.3 [0.1-0.6]) and neonatal death occurred less frequently (OR, 0.4 [0.2-0.8]). Among infants weighing more than 1000 g, mode of delivery was not associated with low Apgar score, neonatal mortality, or infant mortality.

Yang and colleagues sought to investigate the same question, but used data from the multiple matched birth file from 1995 through 1997.[11,12] Both publications showed a higher rate of maternal complications in women delivering by cesarean for twins than for women with either vaginal-vaginal or vaginal-cesarean twin deliveries. One study[12] examined 15,185 vertex-nonvertex twins. The number of pairs between 24 and 31 weeks was 1634. The study stratified women into three groups: cesarean-cesarean (C-C), vaginal-vaginal (V-V), and vaginal-cesarean (V-C). The study used C-C as the reference group. With respect to noncongenital anomaly–related deaths, the V-V group had an adjusted ORs (aOR) of 3.30 (2.04-5.44) and combined delivery had an aOR of 1.14 (0.6-2.13). For asphyxia-related deaths, the V-V group had an aOR of 7.63 (1.28-145.11), whereas the V-C group had an aOR of 2.28 (0.09-58.12). Low Apgar scores at 5 minutes were more common in both the V-V and V-C groups with an aOR of 2.39 (1.17-3.38) and 2.35 (1.60-3.46), respectively. The study also evaluated ventilation use, seizures, and newborn injury. No statistically significant differences were found with respect to mode of delivery.[12] The same authors replicated this study examining only vertex-vertex twins[11] and found that, in second twins lighter than 1500 g that were delivered vaginally, an increased risk of death and low 5-minute Apgar score was found, although none of the aOR reached 2. Within the same study, however, no statistically significant associations were found between mode of delivery and asphyxia-related deaths, seizures, or ventilation use.[11]

Utilizing chart review and the neonatal database at the University of Washington, Davison and colleagues compared neonatal outcomes of 97 twins with birthweights ranging from 750 to 2000 g delivered by one of two methods: planned cesarean or planned successful breech extraction. No statistical significance was detected with respect to birthweight, gestational age, survival, respiratory distress syndrome, necrotizing enterocolitis, or severe intracranial hemorrhage. When second twins were analyzed separately, an increase in respiratory distress syndrome occurred in those twins delivered by cesarean.[27]

A study conducted in Sweden examined short- and long-term outcomes in a twin population.[28] Outcomes included were intrapartum and neonatal mortality, cerebral palsy, and mental retardation. From 1973 to 1983, cesarean delivery for twins increased from 7.7% to 68.9%. Intrapartum and neonatal mortality were analyzed between methods of delivery and no statistical differences were found. In the first study period, vaginal delivery predominated, whereas in the second study period, the primary delivery method was cesarean. In total, 8.8% of twins were affected with cerebral palsy or mental disability in the first study period, and 8.0% of twins were affected in the second study period. As the rate of cesarean delivery increased, cerebral palsy and mental disability rates remained constant.

These findings led the authors to conclude that mode of delivery for twins weighing less than 1500 g is unrelated to perinatal mortality or long-term adverse outcome.

The data with respect to perinatal outcome are inconsistent regarding mode of delivery for preterm twins weighing less than 1500 g. All studies are retrospective, and many are complicated by data that include emergent cesarean for various indications. Including these unplanned cesarean deliveries potentially skews the data toward poorer neonatal outcomes in the cesarean delivery groups, clouding the ability of critical readers to discern whether cesarean may actually be protective in this population. Some studies suggest benefit in women with twin gestation at these gestational ages delivered by cesarean, whereas others fail to show any difference. Given that cesarean unequivocally increases maternal morbidity without a clear, consistent benefit to the neonate, the provider is encouraged to engage in an informative discussion with the patient regarding her desired mode of delivery and her risk tolerance. For a provider skilled in breech extraction, the available evidence in twins weighing less than 1500 g does not contravene a trial of labor with breech extraction of second twin in a patient who is motivated for a vaginal delivery. On the other hand, in light of the potential neonatal risks, provided the patient understands the maternal morbidity associated with cesarean delivery and the lack of conclusive findings, it is reasonable to offer a cesarean delivery for twins at this gestational age. As within many areas of perinatology, there is a scarcity of quality data available to guide the evidence-based obstetrician in this matter, making shared decision making all the more important.

Discordant Twins

Discordant size has been viewed by some as a relative contraindication to vaginal extraction of a breech second twin. This idea originated in the commentary of an article published by Chervenak—without the backing of any published data—and was later supported by Blickstein.[23,29] Theoretical reasons include a possible increased risk of head entrapment and birth trauma. Data also suggest that discordant twins have a higher baseline neonatal mortality rate even after controlling for fetal growth and gestational age.[30] For the smaller twin, increased neonatal mortality is demonstrated after discordance is greater than 25%. For the larger twin, increased mortality is seen when discordance is greater than 30%.[30]

The multiple matched birth database was analyzed to determine if neonatal mortality rates varied in relation to birthweight discordance and method of delivery. The study focused on twins at greater than 34 weeks of gestation and divided the 340,446 vertex-nonvertex liveborn infants between 1995 and 1998 into two groups: cesarean delivery and vaginal delivery. The study found that cesarean delivery was protective at a statistically significant level only after a 40% discordance was reached.[31] Combined deliveries were excluded. Another study[18] used the same database from 1995 to 2000, focusing on twins at greater than 30 weeks of gestation. In this study, two groups were again created: cesarean delivery and vaginal delivery. Combined deliveries were included in the vaginal delivery group. As birthweight discordance increased, neonatal morbidity did not increase. Among vertex-nonvertex vaginally delivered twins, when the birthweight of the second twin exceeded that of the first twin by 25% or more, no excess morbidity was demonstrated.[18]

Persad and colleagues examined risk factors for combined deliveries.[4] A total of 50 patients underwent combined delivery. Only 2 of the 50 deliveries had a greater than 25% difference in birthweight. Overall, the study found that birthweight discordance was not associated with an increased risk of cesarean delivery. The study also attempted to address whether a larger second twin was a risk factor for combined delivery. The study identified six sets of twins in which the second twin was more than 500 g heavier than the first, focusing on the outcome of a combined delivery. This finding was associated with an approximate two-fold higher risk of cesarean delivery for the second twin.

Based on the retrospective data available, twin discordance does not represent a contraindication to a vaginal trial of labor, even if the larger twin is the nonpresenting twin.

Based on the retrospective data available, twin discordance does not represent a contraindication to a vaginal trial of labor, even if the larger twin is the nonpresenting twin.

From the published data, weak evidence may support consideration of cesarean delivery in extremes of discordance. From a practical standpoint, this may apply when the second twin is approximately ≥40% larger than the presenting co-twin, although even in cases of extreme discordance, the overall contribution of discordant twins to the outcome of combined delivery is minimal.

Trial of Labor After Cesarean Delivery

Three independent studies have evaluated a trial of labor after cesarean (TOLAC) in women carrying twins (Table 1).[32-34] Data from the MFMU's

Table 1
Twin Trial of Labor After Cesarean

	Varner M et al[32]	Ford A et al[33]	Cahill A et al[34]
Total number of women	412	6555	535
TOLAC	186	1850	177
VBAC success (%)	64.5	45.2	75.7
Uterine rupture rate (%)	1.1	0.9	1.1
Transfusion (%)	1.7	1.2	2.3

TOLAC, trial of labor after cesarean; VBAC, vaginal birth after cesarean.

Cesarean Registry[32] evaluated 412 women, of whom 186 chose a trial of labor; 64.5% successfully delivered vaginally, also known as a vaginal birth after cesarean (VBAC). Of women who failed a trial of labor, 45% underwent a combined delivery.[32] In pregnancies greater than 34 weeks of gestation, no statistically significant differences were found between groups for intrapartum death, neonatal death, Apgar scores, cord blood pH, maternal blood transfusions, maternal intensive care unit admissions, or uterine rupture.[32]

In a similar study,[33] 6555 mothers with twin gestation were included, 1850 of whom opted for TOLAC. The rate of uterine rupture was 0.9% for women undergoing TOLAC. Successful VBAC occurred in 45.2%. The third study[34] included data from 17 different centers in the northeastern United States. This study compared mothers undergoing TOLAC with twins to mothers undergoing TOLAC with singletons. Results showed women with twin gestation and previous cesarean delivery were less likely to choose a trial of labor. When TOLAC was chosen, VBAC occurred equally among women with twins and women with singletons.[34] Collectively, all three studies showed that uterine rupture rate and transfusion rate were similar to singleton pregnancies.

Data suggest that TOLAC for women with twin gestation carries similar maternal risk to singletons with respect to uterine rupture and transfusion rate. There is apparent equipoise between VBAC success rates with twins when compared with singletons. Limited data are available to demonstrate equivalency with regard to neonatal safety, but it is reasonable to presume that, outside of the setting of uterine rupture, neonatal outcomes in the setting of twin TOLAC may be comparable with planned vaginal delivery of twins in an unscarred uterus.

Conclusions

The best method by which to deliver pregnancies in which only the presenting twin is cephalic remains controversial. Evidence supports a vaginal trial of labor in late preterm and term twins. Routes of delivery for preterm twins lighter than 1500 g remains unclear, with compelling data for both planned cesarean and planned vaginal delivery. No data support planned cesarean for birthweight discordance alone. Risks of TOLAC for women with twins appear similar to risks for women with singletons—particularly for those who successfully undergo VBAC. For each of the clinical scenarios above, however, two major factors remain constant: (1) obstetricians need to be prepared for, and skilled in, breech extraction of the second twin; and (2) individualized patient counseling with regard to mode of delivery is important when offering a vaginal trial of labor to women with a twin gestation. ■

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Main Points

- Perinatal outcome is perhaps the most important concern when choosing the preferred route of delivery for twin gestations.
- The best method by which to deliver pregnancies in which only the presenting twin is cephalic remains controversial.
- Evidence supports a vaginal trial of labor in late preterm and term twins.
- Routes of delivery for preterm twins lighter than 1500 g remains unclear, with compelling data for both planned cesarean and planned vaginal delivery.
- Obstetricians need to be prepared for, and skilled in, breech extraction of the second twin.
- Individualized patient counseling regarding mode of delivery is important when offering a vaginal trial of labor to women with a twin gestation.

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